

another French discovery-vessel, the 'Astrolabe,' passed several days in the adjoining port Havre Carteret; and Messrs. Quoy and Gaimard, the naturalists on board, though embarrassed by bad weather, made several additions to Lesson's ornithological discoveries. In the summer of 1841, Havre Carteret was again visited by the English vessel H.M.S. 'Sulphur' (under the command of Sir E. Belcher). Surgeon Hinds certainly made a collection of birds on the occasion, although Mr. Sharpe informs me that only three specimens are registered in the British Museum as having been obtained in New Ireland from the voyage of the 'Sulphur.'

From these sources we were acquainted, previously to the arrival of the present collection, with the existence of some 25 birds in New Ireland¹. Mr. Brown has added at least six or seven species to the list; and it is only from the defective labelling of his specimens, as I believe, that we have not obtained from him a much more complete insight into the character of its *ornis*.

Enough, however, is now known to show that New Ireland must be referred decidedly to the Papuan Subregion² of the Australian avifauna. The presence of such forms as *Gracula*, *Eclectus*, *Nasiterna*, *Lorius*, and *Caloenas* is quite sufficient to prove that it belongs strictly to the northern section of the Australian Region, rather than to Australia itself; and there can be little doubt that New Britain, New Hanover, and the whole of the Solomon groups belong strictly to the same subregion. Let us hope that Mr. Brown may be induced to continue his collections, and to give us further opportunities of continuing these interesting investigations.

2. On a Collection of Chiroptera from Duke-of-York Island and the adjacent parts of New Ireland and New Britain. By G. E. DOBSON, M.A., M.B., F.L.S., &c.

[Received February 2, 1877.]

(Plate XVII.)

Mr. P. L. Selater, Secretary of the Society, has most kindly placed in my hands for examination an exceedingly interesting collection of Chiroptera from Duke-of-York Island and adjacent coasts of New Ireland and New Britain, forwarded to him by the Rev. George Brown, C.M.Z.S.

Although the collection consists of seventeen specimens only, twelve distinct species are represented, of which four are undescribed, one is the type of a new genus and species, and ten are new to the fauna of these little-known islands.

¹ I had intended to have given a complete list of the known birds of New Ireland as an appendix to the present paper, but, not having had time to complete it satisfactorily, must reserve it for a future communication.

² For general remarks on the division of the Australian Region into subregions, see P. Z. S. 1869, p. 125.



M & N. Hanhart imp

MELONYCTERIS MELANOPS.

Suborder MEGACHIROPTERA.

Family PTEROPIDÆ.

Group I. PTEROPI.

PTEROPUS MELANOPOGON.

Pteropus phaiops, Temm. Monogr. Mammal. ii. p. 65 (1835-41).

Pteropus melanopogon, Schlegel; Peters, Monatsber. Akad. Berl. 1867, p. 330.

Pteropus melanopogon, var. *neohibernicus*, Peters, l. c. 1876, p. 317.

Although the single specimen in the collection is larger and has considerably shorter ears than those described under the above name by Dr. Peters, I have no hesitation in referring it to the same species, as it agrees in all other respects with them and comes from the same locality. In size and in the shortness of the ears it agrees more closely with *Pt. degener*, Peters, from the Aru Islands, but differs from that species in the much wider space occupied by the hair of the back, which is more than an inch in breadth across the loins. But in *Pt. melanopogon* the width of the space occupied by the fur of the back diminishes as the animal increases in age; and the length of the ears is not only slightly variable in different individuals of every species of the genus, but is often very considerably lessened by a peculiar ulcerative process which attacks the margins of the ears. I believe therefore that *Pt. degener*, Peters, has been founded on a fully grown or even aged individual of *Pt. melanopogon*, that *Pt. melanopogon*, var. *neohibernicus*, has been described from young individuals, and that the specimen in this collection is intermediate in age between the two. In the following table the relative measurements of these specimens are given for the purpose of comparison.

	Length of head.	ear.	forearm.	second finger.	fourth finger.	tibia.	calcaneum.	foot and claws.	Sex.
<i>Pt. degener</i> , Peters. Aru Islands	in. 3·8	in. 0·88	in. 7·7	in. ...	in. ...	in. 3·4	in. 1·08	in. 2·4	♂
<i>Pt. melanopogon</i> , Dobson. New Ireland.....	3·7	0·9	7·0	14·0	9·4	3·3	1·1	2·4	♂
<i>Pt. melanopogon</i> , var. <i>neohibernicus</i> , Peters. New Ireland.	...	1·1	5·0	♀

The fur in our specimen is dark reddish brown on the face, between the eyes, and under the jaws; head, neck, shoulders, and the

whole under surface of the body bright reddish brown, the hairs paler and more yellowish towards the base; on the back dark brown, intermixed with bright sulphur-yellow, which replaces the brown across the loins; interfemoral membrane with longer, dark brown, almost black hairs.

PTEROPUS CAPISTRATUS.

Pteropus capistratus, Peters, Monatsber. Akad. Berl. 1876, p. 316, pl.

A single specimen of an adult female of this remarkable species agreeing in all respects with the original description. The single central longitudinal black line dividing the forehead, with a similar dark-coloured streak across the face on each side between the eye and the angle of the mouth, as well as its considerably larger size, at once distinguish this species from *Pt. personatus*, to which it is in all other respects very closely allied.

CYNOXYCTERIS BRACHYOTIS, sp. nov.

Resembles *C. minor*, Dobson, in size and in the nakedness of the extremities, but may be at once distinguished by the much shorter ears, longer muzzle, and deciduous first upper premolars.

Ears short, oval, rounded off above; a prominent thickened lobule at the base of the outer margin of the ear-conch; muzzle long and narrow, nostrils and upper lip as in *C. amplexicaudata*.

Fur short, dark brown above, with greyish tips; beneath light greyish brown. On the upper surface the back of the neck and shoulders (in an adult female) is very thinly covered, almost naked, and the fur of the body scarcely extends upon the membranes; the tibiæ and feet and adjacent interfemoral membrane are naked; beneath, a broad band of fur extends outwards behind the elbow and forearm, lessening in width towards the carpus.

First upper premolar very small in immature individuals, deciduous in adults; remaining teeth as in *C. amplexicaudata*.

In the following Table the relative measurements of this species and of *C. minor*, Dobson, are given.

	Length of head.	eye from nose.	ear.	forearm.	thumb.	second finger.	fourth finger.	tibia.	foot and claws.
<i>C. brachyotis</i>	1.5	0.55	0.55	2.85	0.9	4.5	3.4	1.15	0.7
<i>C. minor</i>	1.55	0.45	0.68	2.8	0.9	4.4	3.3	1.05	0.75

The collection contains two specimens—a perfectly adult female, from which the above specimens were taken, and an immature female.

Fig. 1.

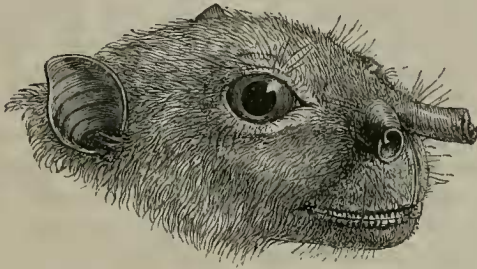
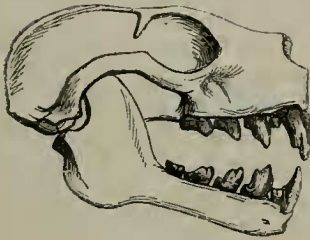
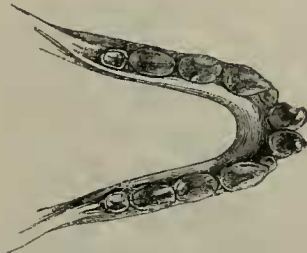
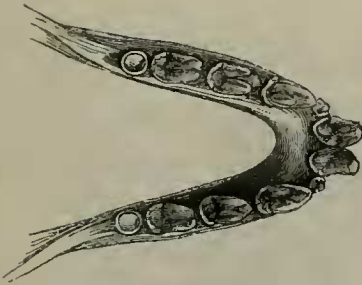
Fig. 2¹.

Fig. 2a.

Fig. 3.



Fig. 3a.

Fig. 1. Head of *Harpyia major*.Figs. 2 and 2a. Skull and lower jaw of *Harpyia major*.Figs. 3 and 3a. Skull and lower jaw of *H. cephalotes*.

HARPYIA MAJOR, sp. nov.

Much larger than *H. cephalotes*, Pallas, but with shorter ears, longer nasal tubes, and much paler-coloured fur, differing also in the form of the skull and of some of the teeth.

Fur above pale buff, the base of the hairs on the back dark ; ex-

¹ The back of the skull is imperfect in the specimen from which this figure was drawn.

tremities of the hairs on the head and about the ears yellow; on the back the greater part pale buff; a dark vertebral line, as in *H. cephalotes*, extends from a point between the shoulders to the tail; beneath dull yellowish buff throughout.

Upper canine on each side with a prominent external cusp; last lower molar with a circular crown. In *H. cephalotes* the upper canine has a blunt ill-defined external projection, and the crown of the last lower molar is oval or quadrilateral. The skull in this species is also very much larger and differently shaped. The frontal bone is deeply grooved between the postorbital processes; and the nasal bones terminate at such a height above the præmaxilla as to be on the same level with the floor of the groove behind them; the zygomatic arch is more than twice as thick as in *H. cephalotes*; and the postorbital processes of the frontal are longer.

The following Table exhibits the measurements of the type of this species, of another, immature specimen with the epiphyses of the finger-bones unconsolidated, and of a perfectly adult specimen of *H. cephalotes* from Timor.

	Length of head.	ear.	forearm.	thumb.	first finger.	second finger (metacarp.).	second finger (1st phal.).	second finger (2nd phal.).	fourth finger (metacarp.).	fourth finger (1st phal.).	fourth finger (2nd phal.).	tibia.	foot and claws.
<i>H. major</i>	1.55	0.55	3.1	1.3	2.2	2.15	1.65	2.3	2.0	1.0	1.2	1.2	0.7
„ (immature).	1.5	0.55	2.95	1.3	2.0	1.9	1.55	2.1	1.85	0.95	1.05	1.1	0.7
<i>H. cephalotes</i>	1.3	0.6	2.4 ¹	0.9	1.6	1.6	1.25	1.7	1.6	0.75	0.85	0.85	0.5

CEPHALOTES PERONII.

Cephalotes peronii, Geoffroy, Ann. du Mus. xv. p. 104 (1810); Temminck, Monogr. Mammal. ii. p. 106.

Hypoderma peronii, Is. Geoffroy, Dict. Classiq. xiv. p. 708.

The collection contains two specimens of this species—an immature female, and a young male with milk-dentition. In the latter there are four upper incisors and two lower.

Group II. MACROGLOSSI.

MACROGLOSSUS MINIMUS.

Pteropus minimus, Geoffroy, Ann. du Mus. xv. p. 97 (1810).

Pteropus rostratus, Horsfield, Zoolog. Researches in Java (1825).

¹ I have found this to be the constant length of the forearm of all perfectly adult specimens of *H. cephalotes* from the Malay archipelago.

Macroglossus minimus, Temminck, Monogr. Mammal. i. p. 191 (1827); Dobson, Monogr. Asiat. Chiropt. p. 34 (1876).

Two specimens of this widely distributed species, differing in no respect except in their slightly smaller size from individuals inhabiting the peninsula of India and Java, and probably identical with the small variety from Australia to which Dr. Peters has given the name *M. australis*.

*MELONYCTERIS*¹, gen. nov.

Muzzle long, narrow, cylindrical; nostrils projecting slightly; upper lip with a vertical groove, bounded laterally by naked raised edges as in *Pteropus* and *Cynopterus*; index finger with a distinct claw; metacarpal bone of middle finger as long as the index finger; wing-membrane from the sides of the body and from the dorsal surface of the base of the middle toe; tail none, or very short.

Dentition.—Inc. $\frac{4}{2-2}$; C. $\frac{1-1}{1-1}$; Pm. $\frac{3-3}{3-3}$; M. $\frac{2-2}{3-3}$.

First upper and lower premolars very small, close to the base of the canines; molars close together, very narrow, scarcely elevated above the gum.

Tongue very long and narrow, as in *Macroglossus*.

This genus is most closely related to *Macroglossus*, with which it agrees in the general form of the skull and in the mode of attachment of the wing-membrane to the sides of the body, but is distinguished by the very different position and size of the first premolars, by the origin of the wing-membrane from the middle toe instead of from the base of the fourth, and by the form of the extremity of the muzzle.

Fig. 4.

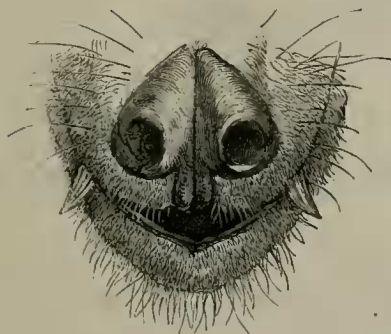
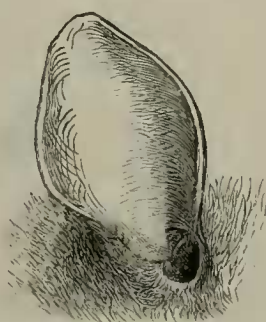


Fig. 5.



Front of muzzle and ear of *M. melanops*.

MELONYCTERIS MELANOPS, sp. nov. (Plate XVII.)

Slightly smaller than *Eonycteris spelæa*, Dobson, which it resembles closely in the external form of the muzzle; nostrils as in *Cynonycteris amplexicaudata*, but scarcely so prominent, separated by a deep groove which passes down to the upper lip, where it becomes

¹ *μῆλον*, tree-fruit; *νυκτερίς*, a bat.

narrower and is margined as in *Cynopterus* by raised naked edges (fig. 4); tongue very long, much attenuated in terminal fourth, armed with recurved, brush-like papillæ; ears about as long as the muzzle, oval, rounded off above, the outer and inner margins of the ear-conch equally convex, so that the ear attains its greatest width in the middle (fig. 5).

Interfemoral membrane very short behind; no trace of a tail in either of the specimens. Wing-membrane from the base of the middle toe, or from the space between the second and middle toe, and from the sides of the body. Fur moderately short, but very dense, extending thickly upon the wing-membrane as far outwards as a line drawn from the elbow to the knee, and more thinly for a considerable distance beyond, and also covering the short interfemoral membrane and the legs. Above bright reddish yellow, the base of the hairs dark; crown of the head dark brown, the extremities of the hairs greyish yellow; a large patch round each eye dark brown, almost black; anterior half of the muzzle pale buff, a narrow streak of the same colour passing backwards between the eyes; the whole under surface of the body dark brown, almost black, the extremities of the hairs greyish; the fur on the sides of the body longer, and the terminal half of the hairs brownish buff.

Upper incisors small, forming a semicircle in front, and separated from the canines by a wide space on either side; central incisors somewhat larger than the outer ones, and converging slightly; lower incisors very small, in pairs, separated by a space between; upper

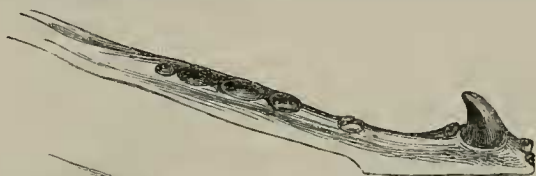


Fig. 6.



Fig. 7.

Upper and lower jaws of *M. melanops*.

canines remarkably long and strong, deeply grooved anteriorly by a longitudinal furrow: first upper premolar exceedingly small, and so close to the canine as to appear to be a small basal projection from that tooth; second premolar larger than any of the other teeth (except the canines), in the centre of the wide space between the canine and first molar; third premolar shaped like the second premolar, but much smaller and close to the first molar; molars very narrow, scarcely raised above the gum; first lower premolar larger than the

corresponding tooth in the upper jaw, but still very small, and similarly placed close to the canine, and separated from the second premolar by a wide space equal to the distance between the lower canines; second lower premolar scarcely larger than the third, and separated from it by a wide space; third premolar close to the first premolar; molars close together, very narrow, their roots and those of the other teeth in both jaws visible through the exceedingly thin translucent alveoli (figs. 6 and 7).

The molar teeth in this species appear to be proportionally smaller than in any other known species of Megachiroptera, while the canines are longer and stronger.

Length (of an adult ♂): head and body 4''·0; head 1''·4; eye from nose 0''·55; ear 0''·6; forearm 2''·4; thumb 0''·85; first finger 1''·9; second finger—metacarp. 1''·85, 1st ph. 1''·35, 2nd ph. 1''·9; fourth finger—metacarp. 1''·9, 1st. ph. 0''·8, 2nd ph. 0''·8; tibia 1''·05; calcaneum 0''·3; foot and claws 0''·7.

Suborder MICROCHIROPTERA.

Family RHINOLOPHIDÆ.

PHYLLORHINA TRICUSPIDATA.

Rhinolophus tricuspidatus, Temminck, Monogr. Mammal. ii. p. 20, pl. 32. figs. 11, 12 (1835-41).

One specimen of this small species with fur bright reddish brown above and beneath. *P. tricuspidata* is probably the smallest species of Rhinolophidæ, and has hitherto been recorded from the Moluccas and Amboyna only.

PHYLLORHINA GALERITA.

Hipposideros galeritus, Cantor, Journ. Asiat. Soc. Beng. 1846, p. 183.

Phyllorhina labuanensis, Tomes, P. Z. S. 1858, p. 538.

Phyllorhina longicauda, Peters, Monatsber. Akad. Berl. 1861, p. 708.

Phyllorhina brachyota, Dobson, Journ. Asiat. Soc. Beng. 1874, p. 237.

Phyllorhina galerita, Dobson, Monogr. Asiat. Chiropt. p. 69 (1876).

The single specimen in the collection agrees with individuals of this species from the Oriental Region in having the tail almost wholly included in the interfemoral membrane, and not with the very closely allied *P. cervina* from Australia, which has the last and half the antepenultimate caudal vertebra free. It is therefore very doubtful if *P. cervina* can be considered distinct from this species.

As *P. galerita* is also found in the Peninsula of India and in Burmah, its geographical distribution is very wide, much wider than that of any other known species of Rhinolophidæ; for although *P. speoris* was described by Zelebor under the name of *P. taitiensis*, we are not absolutely certain that the specimen so named was really obtained at the island Tahiti.

PHYLLORHINA CALCARATA, sp. nov. (Fig. 8.)

Ears as long as the head, triangular, with obtuse extremities; inner margin of the ear-conch very convex in lower half, almost straight above; outer margin slightly concave immediately beneath the tip, then straight. Nose-leaf simple in front, no secondary leaflets on the sides of the muzzle; horizontal leaf narrow, like that of *P. bicolor*; the transverse terminal leaf as in *P. larvata*, broader than the sella, with three short ill-defined vertical ridges dividing its concave front surface; a small frontal pore behind the transverse nose-leaf.

Fig. 8.

Head of *Phyllorhina calcarata*.

First phalanx of the thumb as long as the metacarpal bone. Wings from the tarsus. Calcaneum remarkably long and strong, longer than in any other known species of the genus, exceeding half the tibia in length; tail long, projecting one tenth of an inch beyond the interfemoral membrane.

Fur long and dense, above dark brown, the base of the hairs much paler, especially on the anterior half of the body; beneath, orange-brown.

Length: head and body 2''·5; tail 1''·4; head 0''·85; ear 0''·85; nose-leaf 0''·3 × 0''·22; forearm 2''·0; thumb 0''·35; second finger—metacarp. 1''·3, 1st ph. 0''·8, 2nd ph. 1''·0; fourth finger—metacarp. 1''·45, 1st ph. 0''·65, 2nd ph. 0''·55; tibia 0''·9; calcaneum 0''·6; foot and claws 0''·4.

Family VESPERTILIONIDÆ.

KERIVOULA HARDWICKII.

Vespertilio hardwickii, Horsfield, Zoolog. Researches in Java (1825).

Kerivoula hardwickii, Gray, Ann. & Mag. Nat. Hist. 1842, p. 258; Dobson, Monogr. Asiat. Chiropt. p. 148, figs. *a, b, c* (1876).

Although the single specimen representing this genus is larger and has comparatively larger outer incisors and brighter-coloured fur than individuals of *K. hardwickii* from India and Java, I have nevertheless no hesitation in referring it to that species, with which it agrees very closely in all other respects.

Family EMBALLONURIDÆ.

EMBALLONURA NIGRESCENS.

Mosia nigrescens, Gray, Voyage of the 'Sulphur,' Mammals, p. 23 (1844).

A single specimen of this, the smallest species of the genus, which is at once distinguished from *E. monticola* from the adjoining parts of the Oriental region by the very differently shaped muzzle, by the widely separated nostrils, and by its conspicuously smaller size.

E. nigrescens has hitherto been recorded from Amboina and Ternate only.

Besides the discovery of the new species described above, the following generalizations are afforded by an examination of the species represented in this collection:—

I. That New Britain and New Ireland agree very closely in their Chiropterous fauna with that of other lands within the Australian region (Austro-Malayan subregion), three species only out of twelve (*Macroglossus minimus*, *Phyllorhina galerita*, and *Kerivoula hardwickii*) extending also into the Oriental region.

II. That, to judge from the large proportion of frugivorous Bats in the collection (nearly two thirds of the whole), New Britain and New Ireland agree with the Oceanic Islands in this respect, rather than with the continental lands within the Australian region.

3. On the Rodents and Marsupials collected by the Rev. G. Brown in Duke-of-York Island, New Britain, and New Ireland. By EDWARD R. ALSTON, F.L.S., F.Z.S., &c.

[Received February 14, 1877.]

(Plates XVIII. & XIX.)

Mr. Selater has kindly intrusted me with the determination of the Rodents and Marsupials contained in Mr. Brown's interesting collection.

They are few in number, consisting of but six species. Three of these appear to be identical with animals known to inhabit New Guinea, while the remainder belong to hitherto undescribed species. The latter, however, find their nearest allies either in New Guinea or in Northern Australia, thus fully confirming the strictly Papuan character of the fauna of this group. The large proportion of new species in this small collection shows, nevertheless, that a perceptible amount of change has taken place, and leads us to hope that many novelties will yet reward the researches of Mr. Brown, after whom I propose to name the first of the new species:—

1. *MUS BROWNI*, sp. n.

Fur both above and below stiff and harsh, most of the hairs being developed into fine flattened and channelled spines; on the back a